

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A three-dimensional image display method comprising:

detecting directions of incident light emitted from a plurality of light sources at a plurality of detectors;

detecting lightness of the light sources based on depth of the shadows at the detectors;

calculating positions of the plurality of light sources existing in real space based on the detected directions;

comparing each of the positions of the light sources and a virtual position of a display object in a three-dimensional image displayed in real space to obtain shadows for applying to the display object from directions of the light sources, the shadows being caused by the light sources; and

displaying the three-dimensional image with the shadows.

2-3. (Canceled)

4. (Previously Presented) The method according to claim 1, further comprising:

obtaining a position of a single virtual light source, which represents the plurality of light sources; and

comparing the position of the virtual light source and the virtual position of the display object in the three-dimensional image to obtain a virtual shadow for applying to the display object from a direction of the single virtual light source, the virtual shadow being caused by the single virtual light source.

5. (Currently Amended) A three-dimensional image display device comprising:

a plurality of direction and lightness detectors, each of the detectors detecting directions of incident light emitted from a plurality of light sources and lightness of the light sources based on depth of shadows at the detectors;

a position detector which detects positions of the plurality of light sources existing in real space based on the detected directions;

an image process unit configured to compare each of the positions of the light sources and a virtual position of a display object in a three-dimensional image displayed in real space to obtain shadows for applying to the display object from directions of the light sources, the shadows being caused by the light sources, and to shade in the three-dimensional image.

6. (Canceled)

7. (Previously Presented) The device according to claim 5, further comprising:

a display surface configured to display the three-dimensional image,
wherein:
the direction detectors are disposed on at least one of the display surface
and a surface adjacent to the display surface.

8. (Previously Presented) The device according to claim 5, further
comprising:

a display surface configured to display the three-dimensional image,
wherein:
the direction detectors are disposed to be adjacent to the display surface.

9. (Previously Presented) The device according to claim 5, wherein the
direction detectors are disposed at a position where the direction detectors detect the
light emitted from the light sources located in the same direction as at least one of a
display direction of the three dimensional image and a direction in which the three-
dimensional image is observed.

10. (Previously Presented) The device according to claim 5, wherein:
each of the direction detectors includes a three-primary colors detection
unit that adds colors to the shade.

11-16. (Canceled)

17. (Previously Presented) A device according to claim 5,
- wherein the position detector detects the positions of the plurality of light sources based on a display surface as a reference plane;
- wherein the image process unit compares each of the positions of the light sources and the virtual position of the display object in the three-dimensional image based on the display surface as a reference plane; and
- wherein the image process unit projects the image in real space such that the three-dimensional image spatially spreads out in real space.